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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,694	05/09/2001	Eric Thomas Best	88265-4032	3516

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WINSTON & STRAWN  
PATENT DEPARTMENT  
1400 L STREET, N.W.  
WASHINGTON, DC 20005-3502

EXAMINER

HENDRICKS, KEITH D

ART UNIT	PAPER NUMBER
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1761

DATE MAILED: 06/12/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/851,694

Applicant(s)

BEST ET AL.

Examiner

Keith Hendricks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7,8,9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "regular" and "ambient", in claim 1, are relative terms which render the claims indefinite. The term are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

- From the claim, it is unclear to what product the term "regular" is applied, in relation to the claimed product. The term "corresponding" may be suggested as a partial-phrase alternative, if appropriate.
- The term "ambient" is a relative and undefined term within the claims and specification. It is unclear if this may be a term defined only as a standard accepted "room temperature" of approximately 24°C (76°F). The temperature at which a person consumes the claimed confectionary is the ambient temperature; however, this may be -4°C, or 40°C, and thus would certainly have an effect upon the claimed invention.

\* For the record, it is noted that page 11 of the specification states that "normal cold storage and distribution temperatures for ice confectionaries" is -30°C.

The language of claims 4 and 12 is indefinite, as the metes and bounds of the claimed invention are unclear. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature

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introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

- The phrase “boiled sugar sweets” is a broad term, which also encompasses at least such specifically-recited items as caramels, toffees and fudges, as well as fondants.
- Similarly, the phrase “aerated confections such as” is indefinite for the reasons set forth above.
- Furthermore, the end of the list recited by “aerated confections such as” is unclear; it is unclear if this is intended to encompass solely “marshmallow and nougat”, or if it is to include the further recited options of “chewing gums, fondants or marzipans.”

Claims 18-19 are indefinite, as it is unclear what total composition is indicated by the phrase “is present in an amount.” It is unclear if this refers to the analogue portion alone, or to the entire claimed composite frozen product. It is suggested that the phrase be amended to “is present in the analogue in an amount”, if accurate and appropriate.

Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The term “glassy state” is defined at page 11 of the specification as being “substantially free of crystalline structure”, and thus claim 14 does not appear to further limit claim 1, where “is in a glassy state.”

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Smagula et al. (US PAT 5,011,704, of record).

Smagula et al. disclose a fudge sauce with a frozen confection, where the fudge sauce is "characterized by a thick-yet-flowable (i.e. gooey) viscosity" (col. 2, ln. 28-30). The fudge sauce may be manufactured to maintain this state at temperatures of  $-12^{\circ}\text{C}$ , down to  $-18^{\circ}\text{C}$ . "In some embodiments, the sauce should be thick enough to support a stick employed to hold a frozen confection for eating" (col. 2, ln. 35-37). While the fudge sauce maintains this property at such temperatures, it is also formulated to "provide organoleptic properties closely approximating those of their conventional counterparts at warmer temperatures." The confectionary may be packaged as part of a ready-to-eat dessert including additional components of ice cream, chocolate flavoring, and a stick to form an ice cream bar. The mixture also comprises saccharides to reduce the freezing point of the confection, as well as water, a food starch, a fat component, and hydrocolloids. The list of fat components at column 4 includes palm oil, in amounts of from about 1-10%, and the list of saccharides at column 3 includes sucrose and "fructose containing syrups" such as corn syrup, in amounts of "from about 30 to 55%." "Saccharides will be selected to be stable in admixture against crystallization" (col. 3, ln. 29-31).

Regarding instant claims 5-6, the ingredients are prepared by mixing water and the oil or fat, and dispersing the remaining components in the water, then cooking and heating to pasteurization temperatures (col. 6). The confectionery mass is added to an ice cream mix having a temperature of between  $-25^{\circ}\text{C}$  and  $-40^{\circ}\text{C}$ , and "the center-filled deposits are then hardened further... and placed in frozen storage (col. 5, ln. 42 – col.6, ln. 44).

It is noted that, although the reference does not describe the physical state of the fudge sauce confection at temperatures below approximately  $-15^{\circ}\text{C}$  to  $-18^{\circ}\text{C}$ , given natural viscosity dynamics, it follows that this would exist in a glassy state, i.e. "frozen" and non-crystalline, at temperatures lower than those in which it exists in a thick, gooey state. The state described in the reference at approximately  $-15^{\circ}\text{C}$  falls into the property of "a chewy transition temperature".

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smagula et al., take as cited above, in view of the combination of Kuntz ("Food Product Design: Ice Cream Inclusions", 1994) and Lees et al. ("Sugar Confectionary and Chocolate Manufacture", of record).

The Kuntz reference teaches of common modes of designing and producing ice cream inclusions, which are pieces or variegates added to ice cream. Regarding the texture requirements for the inclusions, considerations include the fat content, sweetener system, stabilizers and moisture (pg. 3). "The sweetener used in the inclusion affects the texture by depressing the freezing point. Disaccharides like sugar tend to produce ice crystals. Using corn sweeteners that contain a high level of monosaccharides, on the other hand, results in a less icy product." Thus, moisture, sweeteners and other solids content may be adjusted to manipulate the texture of the frozen inclusion. At page 6, it is stated that confectionery variegates such as

caramels, marshmallow, chocolate and fudge are commonly used as variegating sauces." "With caramels and chocolates, people really like a textural contrast... With a fairly high partially hydrogenated vegetable oil level, you can make a chewy type. Something lower in fat with sweeteners that depress the freezing point would give a more syrupy texture. By varying the formula, you can develop products with a wide range of textures.

Regarding other candy products as inclusions, "formula modifications can produce a candy that is acceptable for ice cream use" (pg. 8).

Lees et al. disclose various known calculations of syrup and crystal phases regarding the sugar content of sugar confectionaries and chocolates. At page 357-359, the reference provides data and formulas for calculating the equilibrium relative humidity (ERH) of a confection, and for producing such confections, relative to the amounts of fats, water and sugars. Table 81 provides an ERH list corresponding to the concentration of sucrose equivalents.

Thus it would have been obvious to one of ordinary skill in the art to have modified the formulations of Smagula et al. to adjust the texture of the "thick-yet-flowable (i.e. gooey) viscosity" fudge sauce inclusions. Smagula et al. provide a wide range of freezing-point temperatures and viscosities available, and Kuntz demonstrates that the adjustment of the texture of such inclusions is commonly performed, and well within the ordinary level of skill in the art. In fact, a "chewy type" of fudge sauce variegate was specifically suggested by Kuntz. Lees et al. simply demonstrates that one of ordinary skill in the art would readily know and have available the proper formulations for making such a product of chewy texture at freezing temperatures. Although the primary reference does not provide values for the ERH of the fudge sauce inclusions, this would have been well within the ordinary level of

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skill in the art to have determined, based upon the specific teachings of the primary reference, and, if necessary and desired, would have been obvious to have modified depending upon the desired texture. This again, was demonstrated and supported by the teachings of the secondary references, Kuntz and Lees et al.

### *Conclusion*

Claims 17, 19 and 20 are free of the prior art of record. While the addition of natural fruit-containing inclusions to ice creams was known, this was a difficult task to accomplish, as a number of factors yielded iciness, water migration, and floating of the inclusion in the ice cream preparations. See page 6 of Kuntz. Thus, there was no motivation or reasonable means by which one of ordinary skill in the art would have selected the specifically-recited components of mango pulp, pectin and citric acid, and have had a reasonable expectation of successfully producing the claimed invention with the recited texture and ERH properties.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith Hendricks whose telephone number is (703) 308-2959. The examiner can normally be reached on M-F (8:30am-6pm); First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (703) 308-3959. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9565 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



**KEITH HENDRICKS  
PRIMARY EXAMINER**